

AMENDMENTS -- CLEAN VERSION

Presented below are the amendments in a clean, unmarked format with changes entered and not marked.

In the Specification:

Please delete the heading at page 2, line 1, and substitute the following:

--KICKER FOR NON-VOLATILE MEMORY DRAIN BIAS--

In the Claims:

21. (New) --A method comprising:
- providing an electrical pulse to a first drain bias circuit for a first non-volatile memory cell;
- in response to the electrical pulse:
- pulling a voltage of the first drain bias towards a voltage potential of a supply source; and
- shorting a sense node for the non-volatile memory cell to a reference node.--
22. (New) --The method of claim 21, wherein said first non-volatile memory cell is a flash memory cell.--
23. (New) --The method of claim 22, wherein pulling a voltage of the first drain bias towards a voltage potential of a supply voltage comprises enabling a first kicker device coupled to the drain bias for the first non-volatile memory cell.--

24. (New) --The method of claim 23, wherein said high performance transistor is a P-channel semiconductor device.--
25. (New) --The method of claim 23, wherein shorting the sense node to the reference node comprises enabling a semiconductor device coupled between the sense node and the reference node.--
26. (New) --The method of claim 25, wherein the semiconductor device comprises an s' device.--
27. (New) --The method of claim 25, wherein the electrical pulse is provided prior to sensing the contents of said first non-volatile memory cell.--
28. (New) --The method of claim 25, wherein the first non-volatile memory cell is included in a data array, and further comprising enabling a second kicker device for a second drain bias circuit for a memory cell included in a reference array, the voltage of the first drain bias circuit and a voltage of the second drain bias circuit being pulled towards the same voltage potential.--
29. (New) --The method of claim 25, wherein the first drain bias comprises a cascode amplifier.--
30. (New) --An apparatus comprising:
a kicker device, a first terminal of the kicker device being coupled to a voltage from a supply voltage and a second terminal of the kicker device being coupled to a drain bias circuit for a memory cell of a non-volatile memory device;

a semiconductor device, a first terminal of the semiconductor device being coupled to a sense node of the non-volatile memory cell and a second terminal of the semiconductor device being coupled to a reference node; and the kicker device and the semiconductor device being enabled by an enable signal pulse.--

31.
32. (New) --The apparatus of claim ³⁰31, wherein the non-volatile memory device is a flash memory device.--

32.
33. (New) --The apparatus of claim ³¹32, wherein the enable pulse is received prior to sensing the contents of the non-volatile memory cell.--

33.
34. (New) --The apparatus of claim ³²33, wherein the kicker device is a high performance transistor.--

34.
35. (New) --The apparatus of claim ³³34, wherein the high performance transistor is a P-channel semiconductor device.--

35.
36. (New) --The apparatus of claim ³⁴35, wherein the kicker pulls the voltage of a node towards the voltage potential of a supply source.--

36.
37. (New) --The apparatus of claim ³⁶37, wherein enabling the semiconductor device comprises equalizing the voltage potential of the sense node with the voltage potential of the reference node during bit charging.--

37.
38. (New) --The apparatus of claim ³⁷38, wherein the non-volatile memory drain bias circuit comprises a cascode amplifier.--

38.
39.

(New) --A non-volatile memory device, comprising:

- an array of memory cells;
- an array of reference cells;
- a first drain bias circuit for a first memory cell in the array of memory cells;
- a kicker device, a first terminal of the kicker device being coupled to a voltage from a supply voltage and a second terminal of the kicker device being coupled to the first drain bias circuit;
- a semiconductor device, a first terminal of the semiconductor device being coupled to a sense node of the first memory cell and a second terminal of the semiconductor device being coupled to a reference node of a first reference cell in the array of reference cells; and
- the kicker device and the semiconductor device being enabled by an enable signal pulse.--

39.
40.

(New) --The non-volatile memory device of claim ³⁸~~39~~, wherein the non-volatile memory device is a flash memory device.--

40.
41.

(New) --The non-volatile memory device of claim ³⁹~~40~~, wherein the enable pulse is received prior to sensing the contents of the first memory cell.--

41.
42.

(New) --The non-volatile memory device of claim ⁴⁰~~41~~, wherein the kicker device is a high performance transistor.--

42.
43.

(New) --The non-volatile memory device of claim ⁴¹~~42~~, wherein the high performance transistor is a P-channel semiconductor device.--

43.
44. (New) --The non-volatile memory device of claim ⁴²~~43~~, wherein the kicker pulls the voltage of a node towards the voltage potential of a supply source.--

44.
45. (New) --The non-volatile memory device of claim ⁴⁰~~41~~, wherein enabling the semiconductor device comprises equalizing the voltage potential of the sense node with the voltage potential of the reference node during bit charging.--

45.
46. (New) --The non-volatile memory device of claim ³²~~33~~, wherein the first drain bias circuit comprises a cascode amplifier.--
